

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



ORGANIC RESIDUALS EXEMPTION ON-FARM (ANAEROBIC DIGESTION)

In accordance with the provisions of Section 11507 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and the rules promulgated under Part 115, specifically R 299.4119, organic materials appropriate for anaerobic digestion (Materials) are granted a site/source-separated exemption by the authorized representative of the Director of the Michigan Department of Environmental Quality (MDEQ). Anaerobic digestion is the harnessed and contained process of anaerobic decomposition. An anaerobic digester (AD) is a mixed and heated tank system that utilizes anaerobic digestion to treat waste and produces methane biogas that can be used to power electrical generators, provide digester gas for heaters, and produce soil improving residual material.

This exemption is subject to the following conditions:

- 1. This approval does not relieve a farm that is operating under a permit issued pursuant to Part 31, Water Resources Protection, of the NREPA, from its obligations to comply with the permit. Permitted facilities should check with the MDEQ, Water Bureau's Permits Section prior to making any change of operations at the facility to determine if a new permit or a permit modification is needed.
- This approval is limited to food processing residuals as defined in Section 324.11503(9) of Part 115, syrup from ethanol production, and fish wastes, unless the Chief of the Storage Tank and Solid Waste Section (STSWS), Waste and Hazardous Materials Division (WHMD), MDEQ, approves additional Materials, in writing.
- 3. The Materials shall only be used as a feedstock in an AD that is developed by a farm in order to primarily handle the organic materials generated on the farm. (A farm is as defined in Section 2 of the Right to Farm Act, 1981 PA 93, as amended.)
- 4. This approval is limited to a maximum 20 percent substitution rate, by volume, of the material going into the AD, unless the Chief of the STSWS approves an alternate substitution rate, in writing.
- 5. The AD shall be operated in compliance with Part 55, Air Pollution Control, of the NREPA, and shall not cause a nuisance under Part 115.
- 6. Processing, storage, transporting, or use of the Materials shall be managed in such a way as to prevent nuisance conditions in violation of Part 115 or Part 55 or the rules promulgated under Part 115 or Part 55.
- 7. Each owner/operator of a farm shall ensure Materials brought to the AD are not regulated as hazardous waste under Part 111, Hazardous Waste Management, of the NREPA. Each owner/operator of a farm shall obtain a certification from each

Materials' supplier that, based on their testing or knowledge, the Materials that they are supplying are not a regulated hazardous waste.

- 8. The Materials shall not be stored in a manner constituting speculative accumulation per R 299.4119 of the Part 115 Rules. The owner of the AD property shall maintain records that demonstrate compliance with this condition. All records shall be made available for review upon request of representatives of the MDEQ or Michigan Department of Agriculture (MDA).
- 9. The Materials shall not come into direct contact with surface water, groundwater, storm water, or wetland areas as defined by the NREPA, and the administrative rules promulgated thereunder, unless approved or permitted by the MDEQ.
- 10. Each owner/operator of a farm shall ensure that vehicles used to transport the Material on public roads shall comply with the Michigan Vehicle Code, 1949 PA 300, as amended (MVC), and the rules promulgated under the MVC. The Material shall be transported on public roads in compliance with the Michigan Department of Transportation requirements.
- 11. The AD must be operated by a person of responsible charge who has been approved by the MDA as a Certified Operator for Agricultural Anaerobic Digesters. Certification must be obtained by December 31st of the year the AD begins to utilize the Materials as feedstock.
- 12. Storage of the Materials, prior to use in an AD, shall be in (1) a tank, a roofed building, a container, or a surface impoundment whose construction has been permitted under Part 31; (2) other similar structure that is approved by the Chief of the STSWS; or (3) a structure built in accordance with Natural Resources Conservation Service's Conservation Practice Standard, Waste Storage Facility, Code 313.
- 13. The AD byproducts are managed in compliance with all environmental regulations under the NREPA, and methane biogas is actively used for an appropriate use. The biogas must be used primarily for generation of energy.
- 14. "Digestate" is defined as the supernatant, digested sludge product, and all cleanout residuals from the AD. The digestate that leaves the AD must be managed in accordance with one of the following:
 - a. The owner/operator of the farm must properly characterize and dispose of the digestate in a licensed landfill in compliance with the landfill's waste acceptance procedures.
 - b. The digestate may be disposed of at a municipal wastewater treatment plant, if the owner of the AD obtains written approval from the wastewater treatment works authority. For disposal at a wastewater treatment works, laboratory analyses may be needed for the following parameters:
 - i. Mercury, PCBs, if waste is fish offal
 - ii. Any other chemical residuals

Staff of the MDEQ will provide assistance in advising about sampling protocol if requested.

- c. The digestate may be land applied provided all of the following conditions are met:
 - The owner/operator of the farm must ensure that the digestate is managed in compliance with the Nutrient Utilization Generally Accepted Agricultural Management Practices (GAAMPs) or the Manure Management GAAMP developed under the Right to Farm Act.
 - ii. The operator of the farm shall ensure that the concentration of contaminants in the soil, after land application, shall not cause the creation of a "facility" as defined by Part 201, Environmental Remediation, of the NREPA. Activity inconsistent with this approval does not constitute a permitted release as defined in Part 201.
 - iii. The digestate shall be licensed with the MDA under Part 85, Fertilizers, of the NREPA, if it is not used on the farm where it was generated.
- d. The solids that are removed from the digestate may be used as animal bedding.
- e. In another manner approved by the MDEQ.
- 15. By January 31st of each year, a report shall be submitted to the MDEQ from each owner operator of a farm that is operating under this exemption that details the total volume of Materials brought to the AD the previous calendar year, source of generation, characterization data and laboratory results, and location(s) where all digestate was utilized or sold during the previous year. The report shall be sent to:

Mr. Duane Roskoskey
Storage Tank and Solid Waste Section
Waste and Hazardous Materials Division
Michigan Department of Environmental Quality
P.O. Box 30241
Lansing, Michigan 48909-7741

- 16. This approval shall immediately become void for any of the following reasons:
 - a. The owner/operator of a farm does not comply with the conditions of this approval.
 - b. Additional information demonstrates that the processing, use, or storage of the Materials is causing environmental contamination.
 - c. New state or federal regulations are promulgated that would cause this approval to become invalid.

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Since the Materials have been designated a site/source-separated material, the AD will not require a solid waste disposal area construction permit or operating license pursuant to Part 115, provided the owner/operator of the farm does not take a regulated solid waste and they operate in compliance with the conditions contained in this approval. In addition, any Materials that contain free liquids, using the paint filter liquids test, will not be required to use a licensed liquid waste hauler under Part 121, Liquid Industrial Wastes, of the NREPA, provided they operate in compliance with the conditions contained in this approval.

Violation of the conditions of this approval is subject to the enforcement provisions of Parts 31, 55, 85, 111, 115, 121, and 201; the MVC; or other applicable state and federal laws/statutes.

STATE OF MICHIGAN
Department of Environmental Quality

By:

George W. Bruchmann, Chief

Waste and Hazardous Materials Division

Date:

2/3/09